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INVOLVEMENT OF INFORMATION TECHNOLOGIES IN PSYCHOLINGUISTICS PROBLEMS

Аннотация. Данная статья посвящена изучению потенциала использования информационных технологий в психолингвистике. Рассматриваются примеры программ, реализующих методы анализа текста на предмет наличия суггестивной логики, которые используются на сегодняшний день, их возможности, указаны основы их работы.

Ключевые слова: психолингвистика, информационные технологии, прикладная лингвистика, суггестивная логика, подсознательное влияние.

Abstract. This article is devoted to the study of the potential of using information technologies in psycholinguistics. The work discusses examples of programs that implement methods for analyzing the text for presence of suggestive logic that are used nowadays, their capabilities, and the basics of their work.

Keywords: psycholinguistics, information technology, applied linguistics, suggestive logic, subconscious influence.

Variety of functions of language and close nature of its connection with human intelligence makes the interaction of linguistics with the corresponding sciences extremely flexible. The links between linguistics and psychology are especially close, which is caused the introduction of psychological methods into linguistics in the XIX century. This is how psycholinguistics, the science of laws of speech utterances perception which is close to linguistics, has developed. It studies processes of perception and formation of speech in their correlation with the language system. Nowadays psycholinguistics has become increasingly popular among researchers. It created the need to attract a multitude of research programs, which primarily have applied character. The sphere of information technology was no exception.

How is psycholinguistics applied and for whom can it be useful? First of all, the knowledge that we get as a result of studying this branch of

linguistics makes it possible to study texts in suggestive logic. In other words, any text can be examined for the presence of a hidden meaning that affects the subconscious.

Repetitive or "embedded" words are often perceived subconsciously. Sometimes the meaning of hidden words contradicts the main meaning of the phrase. IT violates the congruence of speech. Speech becomes the most convincing, when the hidden and obvious meanings complement each other. Programs of psycholinguistic analysis and speech synthesis can help us here.

If there is an opportunity to investigate texts on their suggestive logic, then it is possible to create suggestion purposefully. First of all, it can be a treasure for those who either make up promotional texts, or write slogans and mottos. In other words, for those whose work is focused on a mass audience. Now in the environment of information technologies, which are an integral part of any sphere of professional activity, including linguistics, there are new expert programs that would make the analysis of texts, providing greater objectivity of conclusions.

Below there are some of the most popular programs that are used by specialists in Russia and other countries, the principles of their work and the tasks that they help to solve. [1]

1) IEA (Intelligent Essay Assessor) (USA) is now considered one of the most correct programs for psycholinguistic analysis. It allows you to identify stylistic errors and the completeness of the disclosure of the topic for a given semantic criterion. Initially created to evaluate students' works— essays on a given topic, the IEA may have a wider application, including forensic psychology, where the analysis of the meanings in any discrepancy in the two texts is studied (for example, written confession of guilt and a document written earlier by the accused person).

2) PSI-office 2.1 – the system of psycholinguistic analysis of texts, which includes 3 components:

- A program that searches for repetitive fragments of text;
- A program for searching words that are "hidden" inside and in transitions between words (for example, the word pact is hidden inside a compact);
- A program for synthesizing the subconscious text component. It helps you synthesize the subconscious components of the text according to the proposed word or phrase. You can create powerful synthetic sound combinations that require an intonational (or visual, if you need to write text) selection from disparate fragments of text. The last component looks for all possible variants of bookmarks and attachments for any of your requests. You offer it a word or phrase that should sound in your text as often as

possible. The program analyzes your query, and gives out all possible combinations.

3) VAAL-2000 – expert system of lexical and content-analysis of texts; it predicts the effect of the unconscious impact of a text on mass audience, analyzes texts from the point of view of such impact, reveals the personal-psychological traits of the author of the text.

The system is implemented as a set of DLL-libraries that connect to the most popular word processor for Windows. Just in the main menu there is a new item. This way of implementation allows you to keep the usual comfortable environment for creating documents for the user and maximally facilitates the development of the VAAL system.

In VAAL-2000, a user can design their own blocks of text analysis criteria or use the following ones:

- Psychiatric analysis (diagnosis of accentuation)
- Psychoanalytic analysis
- Emotional-lexical analysis
- Phono-and color-semantic analysis, etc.

Categories of Psychiatric Analysis attribute the text to the correspondence of the texts of persons with one or another accentuation. In VAAL, diagnostics of paranoid, demonstrative, depressive, excitable and hypertensive accentuations is realized.

Categories of Psychoanalytic analysis assess the expression in the text of words attributed to sexual symbolism (according to Z. Freud), archetypes (according to K. Jung) and expression of aggression.

Categories of Emotional-lexical assessment allow us to reveal the emotional saturation and structure of the evaluation according to 15 emotional-evaluation criteria that are singled out and most significant in Russian culture.

Phono-and color-semantic analysis of the text allows to estimate the unconscious emotional components of the text and words, to generate artificial words with high communicative efficiency.

4) Receptions of journalism & Public Relations – a program that is a consultant, helping the user to write various texts. The user selects a number of parameters that characterize the desired result, and the program gives him recommendations for writing the text and illustrates them with examples.

The program is based on hundreds of rhetorical and stylistic devices revealed through the analysis of more than 12,500 works by Masters of Literature, Journalism and Advertising. The program issues dozens of verified recommendations, by analogy with which the author creates his own

text. As the test results show, the program helps to clarify the topic/content of the interview, clarify the text plan, build the composition of the text fragment, create non-frontal advertising and PR materials, and solve at least 16 most typical tasks, arising when writing Russian-language texts. The author only has to select the most appropriate recommendations from the number of highly effective methods offered by the program and fill them with a specific invoice.

All of the above described is an independent study of the possibilities of applying IT in linguistics, in particular, in psycholinguistics.

Developers of programs that solve linguistic problems are mainly interested in the following issues: the interaction of IT and linguistics; systems for generating texts; automated information retrieval systems; development of various databases for the humanities; analysis and synthesis of text.

All these directions are implemented in practice by a wide variety of specific linguistic programs, which we briefly described, outlining their main advantages. Most programs are really effective, and sometimes even absolutely necessary in the conduct of linguistic research.

And since IT is developing very quickly, it is possible that soon there will be such technologies that will process the language material so accurately that a linguist will not have to doubt the results.

References

1. Psyberia. – URL: <http://psyberia.ru/soft/softlingvo> (accessed October 18, 2017)